



6.00 credits

45.0 h + 30.0 h

Q1

Teacher(s)	Elias Benjamin ;Vlad Alexandru ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	<p>The teaching will familiarize students with scientific reasoning, chemical and physical-chemical phenomena and the laws that govern them.</p> <p>It will cover :</p> <ol style="list-style-type: none"> 1. Classical atomic theory, leading to an understanding of the constitution, organization and properties of atoms, 2. Reaction balances and the study of the major categories of chemical reactions, 3. The description of chemical bonding and the geometry of molecules, 4. An introduction to physical chemistry in its thermodynamic and kinetic aspects, with special emphasis on the concept of chemical equilibrium, 5. The application of these concepts to acid-base and redox reactions. <p>The course will make sure to relate these concepts to everyday life and the main industrial processes.</p>
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p>To provide the basis for scientific reasoning, first qualitative, then quantitative, allowing to understand, analyze and predict simple chemical phenomena. To give a global vision of general chemistry from the point of view of the constitution of matter (atomic theory and chemical bonds), the major classes of reactions and chemical equilibrium. To illustrate the fundamental concepts with examples of inorganic chemistry related to daily life and to current challenges in science and technology.</p> <p>1</p> <p><i>The contribution of this course to the development and mastery of the skills and knowledge of the program(s) is available at the end of this document, in the form of.</i></p>
Inline resources	Moodleucl
Bibliography	<ul style="list-style-type: none"> • Livre de P. Atkins, Laverman et Jones : "Principe de chimie", Trad. Française de A. Pousse (De Boeck SUPERIEUR), ou édition anglaise originale correspondante. Fascicule d'exercices.
Faculty or entity in charge	CHIM

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Minor in Scientific Culture	MINCULTS	6		
Bachelor in Biology, Anthropology and Archaeology	BABA1BA	5		
Bachelor in Geography : General [Réforme 2024-25]	GEOG1BA	6		